



Synthelis®

GPCR

Protein Catalog

GPR50 : Melatonin-related receptor

PL095

Product specification

Acronym: GPR50

Synonyms: MTR1L

Origin species : Human

Protein reference : Q13585 (UniProtKB)
U52219.1 (GenBank)

Family: G-protein coupled receptor

Expression system: E.coli based CFPS

Format: Proteoliposomes

Protein sequence: Met1 – Val613, deletion 502-503,
mutation T531A

Tag : 6xHis tag (N-ter)

Cleavage site: Factor Xa

Product MW: 67.4 kDa

Application: Drug screening & discovery, antibody
development, structural biology

Product description

GPR50 receptor, one of the member of G Protein-Coupled Receptors (GPCRs) is extensively expressed in the pituitary, hypothalamus, cortex, midbrain, amygdala, and in several brainstem nuclei. GPR50 is implied in the hypothalamus-pituitary-adrenal (HPA) axis and the glucocorticoid receptor (GR) signaling, leptin signaling, adaptive thermogenesis, torpor, neurite outgrowth and self-renewal and neuronal differentiation of neural progenitor cells NPC's.

Recombinant protein sequence

His tag – factor Xa cleavage site -

MGPTLAVPTPYGCIGCKLPQPEYPPALHIFMFCAMVITIVVDLIGNSMVILAVTKNKKLRNSGNIFVVSLSVADMILVAIYPYPLMLH
AMSIGGWDLSQLQCQMVGFITGLSVVGSIFNIVAIAINRYCYICHSLQYERIFSVRNTCIYLVITWIMTVLAVLPNMYIGTIEYDPRT
YTCIFNYLNNPVFTVTIVCIHFVLP LLIVGF CYVRIWTKVLAARDPAGQNP DNQLAEVRNFLT MFVIFLLFAVCWCPINVLTVLAV
SPKEMAGKIPNWLYLAAYFIAYFNSCLNAVIYGLLNENFRREYWTIFHAMRHPIIFFSGLISDIREMQEARTLARARAHARDQAREQ
DRAHACPAVEETPMNVRNVPLPGDAAAGHPDRASGHPKPHSRSSSAYRKSASTHHKSVFSSKAASGHLKPVSGHSPASGHPK
SATVYPKPASVHFKADSVHFKGDSVHFKPDSVHFKPASSNP KPITGHHVSAGSHSKSAFSAATSHPKPIKPATSHA EPTTADY PKP
ATTSHPKPAAADNP ELSASHCPEIPAIAHPVSDDSDLPE SASSPAAGPTKPAASQLES DTIADLPDPTVVTTSTNDYHDVVVIDVED
DPDEMAV



Quality analysis

Purity:

Liposomes are directly incorporated into the Cell-Free reaction, thus, some impurities from the *E.coli* lysate are present in the proteoliposomes (Cf. Fig1). A negative control (proteoliposomes without the protein of interest) can be provided (useful for screening, interaction studies...).

The purity can be improved by protein expression in detergent and relipidification after purification step(s).

Purification procedure: GPR50 proteoliposomes are purified on a sucrose gradient.

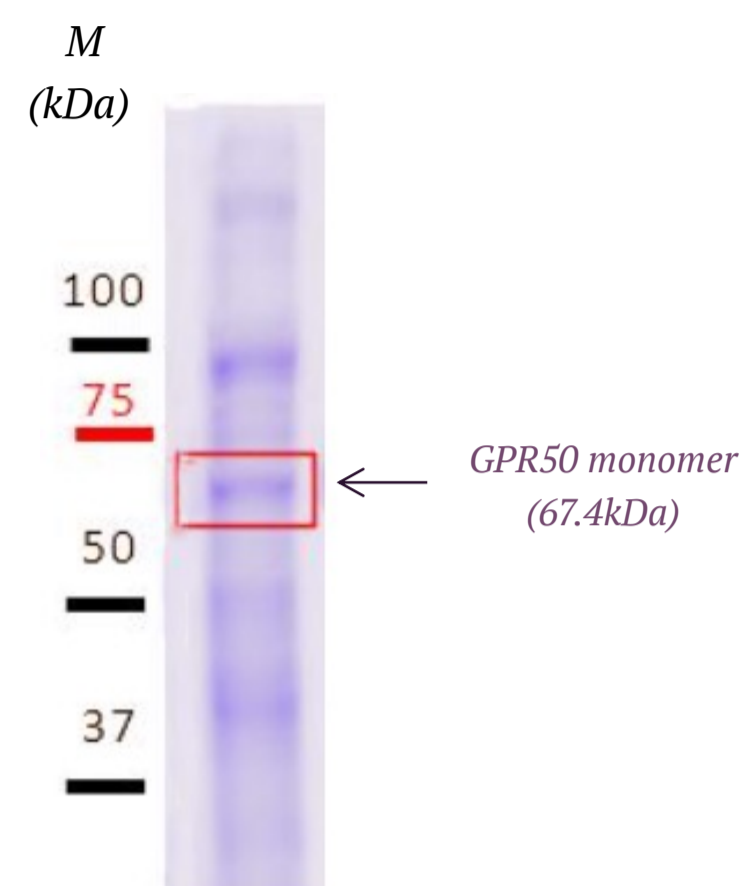


Fig.1: Identification of GPR50 in the proteoliposomes by SDS-PAGE stained by Coomassie Blue.

Formulation

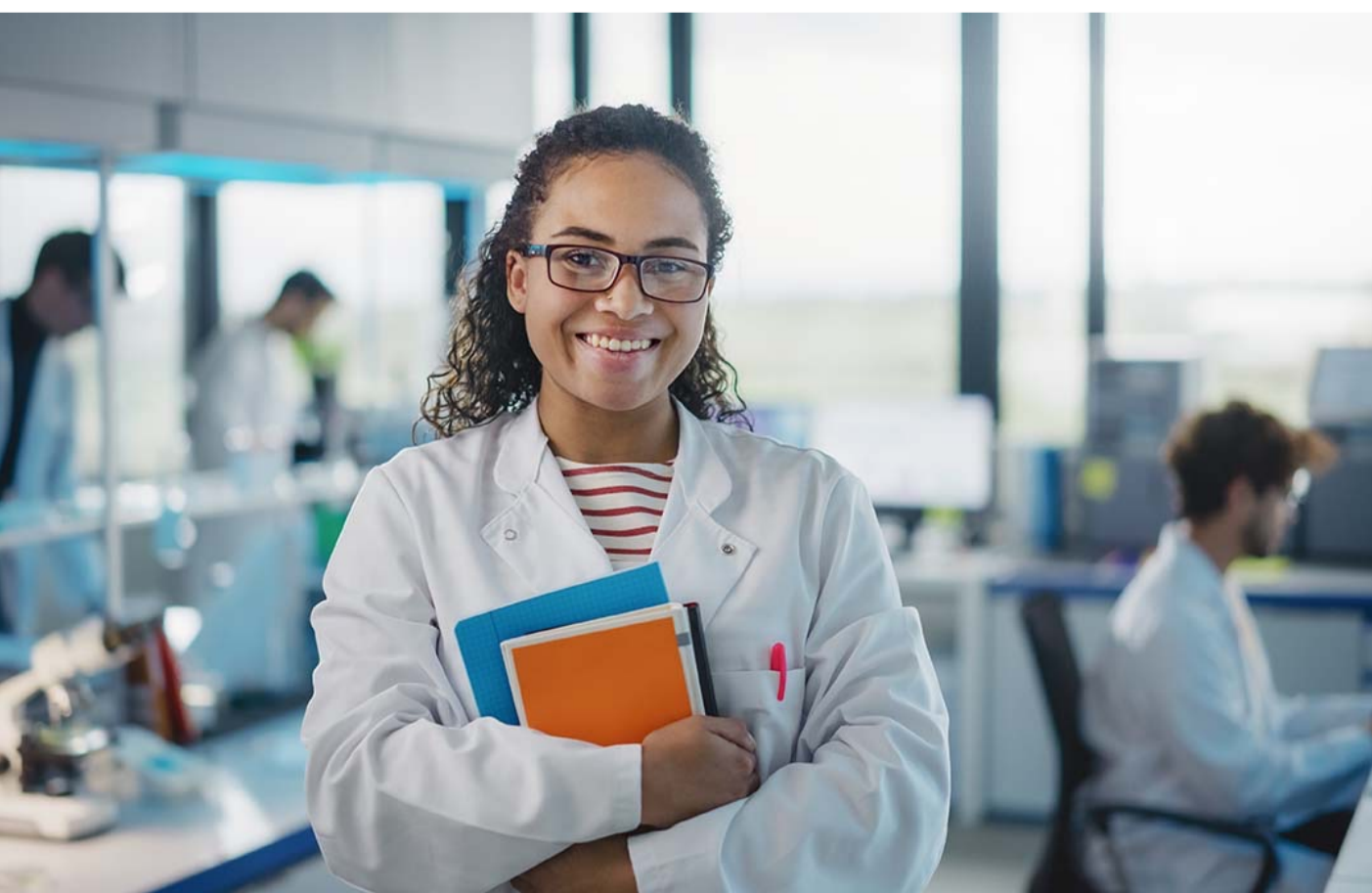
Buffer: Available in HEPES 50mM, pH 7.5 with cryoprotectants. Other buffers or customized formulation can be provided upon request.

Customized Hydrophobic matrix: Customized formulation with specific lipids like PEGylated or biotinylated lipids can be used upon request, as well as targeting molecules.

Storage/Stability: Store at +4°C for up to one week or several months at -80°C. Aliquot for storage.
Do not freeze-thaw after aliquoting.

Use restrictions: For life science research use only.

Available sizes: 10 µg, 50 µg, 100 µg, customized quantity on request.



Need a specific amount, a quote or any additional information?
Contact-us



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